Compared with an 'historic' reference series including 50 CDIE from 1992 to 1999, no significant microbiology evolution has been demonstrated (p=0.64) When compared prior to 2000 to following years, the patient's characteristics changed. The aging (p=0.01) and the severity of the cardiac disease (p<0.001) increased but long term mortality remained the same (aOR for 1992-1999 patients long term mortality, 1,061; 95% IC, 0.50 to 2.25; p=0.88).

Conclusions: Microbiology and adjusted mortality of CDIE have not significantly changed since the 1990's. This study shows for the first time a significant prognostic difference according to germs involved, with a greater survival when CNS was incriminated.

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Feasibility of measurement of Endocardial T Wave Alternans prior to Onset of Ventricular Arrhythmias in ICDs (ETWAS study)

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Introduction: T wave alternans (TWA) has been demonstrated as a strong predictor of mortality and ventricular arrhythmias. ICD-stored intracardiac electrograms (IEGM) present a unique opportunity for detecting temporal relationship between the occurrence of TWA and spontaneous arrhythmia. The aim of the ETWAS study was to assess the feasibility of detection of TWA preceding the onset of VT/VF in IEGM.

Methods: 56 implanted patients with St Jude medical ICDs (44 men, 63 ± 12 yo, mean EF 34 ± 15 %) were prospectively enrolled and monitored for one year. Thirteen different T wave parameters were extracted from IEGM (T amplitude, T peak time, Bazett and Hodges corrected T peak time, T end time, T duration between baseline crossing and between points of maximal slopes, T peak to T end, maximal ascending and descending slopes, timing of points of maximal slopes and T wave area). Successive beat by beat differences in each parameter in recordings prior to VT/VF were compared to control recordings in the same pts. TWA was considered if beat by beat variations for at least one parameter was significantly higher than baseline with a p value < 0,01.

Results: 22 VT/VF episodes (24 ± 13 beats, 71 ± 17 bpm) and 13 baseline (25 ± 9 beats, 72 ± 18) (ns) were analyzed in 12 pts (1,8 episode/ pt). TWA was present before VT/VF onset in 13 episodes (7 pts) with 1 to 9 differing parameters (3 ± 2). Significant beat by beat differences before VT/VF onset were observed in amplitude, timing, slopes, area and duration of the T wave. Amplitude of the beat by beat variations was 3 to10 larger in episodes than in baseline.

Paired and unpaired comparisons of the averaged values of beat by beat variations however did not reveal significant difference between baseline and episodes, except for T wave amplitude (0,07 +/– 0,006 vs 0,14 +/– 0,03 mV, p=0.03 paired and 0,04 unpaired).

Conclusions: Detection of TWA prior to VT/VF might be useful in predicting imminent arrhythmia occurrence. TWA can be detected before VT/VF onset in more than half of episodes using a simple time-domain technique and multiple T wave measurements. T wave amplitude seems the most discriminant parameter.

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Role of endogenous adenosine during ATP-test in patients with syncope of unexplained origin

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For some authors, positive head-up tilt-test (HUT) and/or ATP-test could identify patients with vaso-vagal syncope. It has been shown that endogenous adenosine plays a role in the mechanism of syncope in patients with positive HUT. Indeed, patients with positive HUT have higher adenosine plasma levels (APL) than patients with negative HUT. Moreover, APL increase during HUT, only in patients with positive HUT. Adenosine triphosphate injection can induce in some patients with unexplained syncope a cardio-inhibitory but the role of endogenous adenosine in those patients is unknown.

Methods: In this prospective study we studied APL before and during ATP-test. Twenty consecutive patients with syncope of unexplained origin were included (56.0 ❑ 23.1 y., 13 females). They underwent baseline APL measurement followed by ATP-test. Then APL was measured 1, 5 and 15 minutes after ATP injection. APL were determined by High Performance Liquid Chromatography method on venous blood samples obtained in resting patients. ATP-test consisted of the intravenous bolus injection of 20 mg ATP during continuous recording of the surface ECG. The test was considered positive when a ventricular pause of ≥ 6 sec. occurred, due either to complete atrioventricular block or sinoatrial block.

Results: Nine patients had positive ATP-test. There was no statistical difference between patients with positive and negative ATP-test at baseline, 1, 5 and 15 minutes after ATP injection: 0.32 ❑ 0.16 µmol/L *vs* 0.49 ❑ 0.61 µmol/L, 0.32 ❑ 0.16 µmol/L *vs* 0.37 ❑ 0.21 µmol/L, 0.29 ❑ 0.23 µmol/L *vs* 0.41 ❑ 0.26 µmol/L, 0.34 ❑ 0.20 µmol/L *vs* 0.28 ❑ 0.13 µmol/L, respectively. There was no variation of APL during ATP-test in patients with positive and negative ATP-test.

Conclusion: Endogenous adenosine is not involved in the mechanism of ATP-test. These results suggest that ATP-test and HUT have different mechanism and could identify different groups of patients with syncope of unexplained origin.

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Single or dual-chamber pacemakers? The guidelines of the HAS

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Objective: Our aim was to assess single and dual-chamber pacemakers with a view to updating their reimbursement conditions by French National Health Insurance.

Methods: We performed a critical appraisal of the clinical literature (2002 – 2008) which was then submitted to a multidisciplinary working group of 10 health professionals for discussion. Manufacturers' application files were also consulted.

Results: We analyzed 1 health technology assessment, 1 meta-analysis, 3 guidelines and 3 randomised controlled trials providing data on more than 7000 patients with atrio-ventricular blocks ("AVB") and/or sick sinus syndrome ("SSS").

Pacing mode did not reduce mortality or heart failure hospitalizations. Compared with ventricular pacing, atrial-based pacing (physiologic modes) reduced stroke and atrial fibrillation ("AF"). There was a significant reduction in the composite outcome of stroke or cardiovascular mortality, but only among patients with SSS. Results of quality of life, exercise capacity, functional status and pacemaker syndrome are variable. Physiologic modes were associated with higher rates of perioperative complications (lead dislodgement and infections). Results were independant of age, sex, hyperten-

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